



*Better Buildings Residential Network  
Peer Exchange Call Series*

*Like a Heat Wave:  
Summer Healthy, Efficient Housing Challenges*

July 22, 2021

# Agenda and Ground Rules

- Agenda Review and Ground Rules
- Opening Poll
- Residential Network Overview and Upcoming Call Schedule
- Featured Speakers
  - **Meghan Duff**, Association for Energy Affordability
  - **Elena Chrimat**, Ideal Air Conditioning and Insulation
  - **Sally Phipps**, Austin Energy
- Open Discussion
- Closing Poll and Announcements

## Ground Rules:

1. **Sales of services and commercial messages are not appropriate** during Peer Exchange Calls.
2. Calls are a safe place for discussion; **please do not attribute information to individuals** on the call.

*The views expressed by speakers are their own, and do not reflect those of the Dept. of Energy.*

# Better Buildings Residential Network

## Join the Network

### Member Benefits:

- Recognition in media and publications
- Speaking opportunities
- Updates on latest trends
- Voluntary member initiatives
- One-on-One brainstorming conversations

### Commitment:

- Members only need to provide *one number*: their organization's number of residential energy upgrades per year, or equivalent.

### Upcoming Calls (2<sup>nd</sup> & 4<sup>th</sup> Thursdays):

- 8/12: *The Cost of Cooling: Air Conditioning, Climate and Health Solutions*
- 9/12: *Behavior Change, Efficiency and Climate: What Really Happens vs. Models & Assumptions*

Peer Exchange Call summaries are posted on the Better Buildings [website](#) a few weeks after the call

For more information or to join, for no cost, email [bbresidentialnetwork@ee.doe.gov](mailto:bbresidentialnetwork@ee.doe.gov), or go to [energy.gov/eere/bbrn](http://energy.gov/eere/bbrn) & click Join

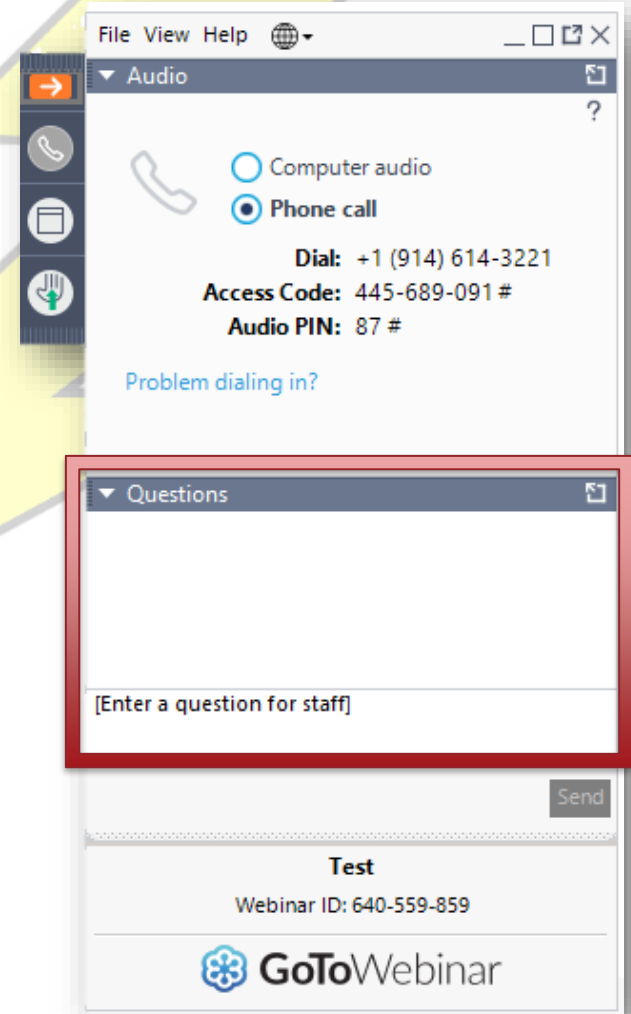
# Call Attendee Locations



# Opening Poll: Lightning Chat

What topics would you like to see discussed on future Peer Exchange Calls?

*Please type a brief response in the questions box.*



# Opening Poll

- What is your organization's experience or familiarity with cooling equipment and strategies?
  - Very experienced/familiar
  - Some experience/familiarity
  - Limited experience/familiarity
  - No experience/familiarity
  - Not applicable



**Meghan Duff**  
*Association for Energy Affordability*

# BBRN Peer Exchange Series

Like a Heat Wave: Summer Healthy,  
Efficient Housing Challenges

**Meghan Duff**

Senior Associate, R&D Projects

7/22/2021



*Decarbonizing the Built Environment is Our Specialty,  
Affordable Housing is our Priority*

AEA is dedicated to achieving energy efficiency in new and existing buildings in order to foster and maintain affordable and healthy housing and communities, especially those of low-income.

With locations in NY and CA, AEA representatives engage in a broad range of educational, technical and construction management activities and services to promote this mission and develop the industry that advances and sustains it.

- Energy Program Design & Implementation
- Advanced Building Technology Research & Demonstrations
- Training the Workforce and the Industry at Large
- Technical Services (Energy & Green Building Consulting)
- Policy and Advocacy



# Look Ahead

- Energy Efficiency for Climate Resiliency
- Examples from the Field
- Current Impacts on Delivering Energy Efficiency
- Importance of Technical Assistance



# Multifamily Buildings Need Energy Efficiency for Climate Resiliency

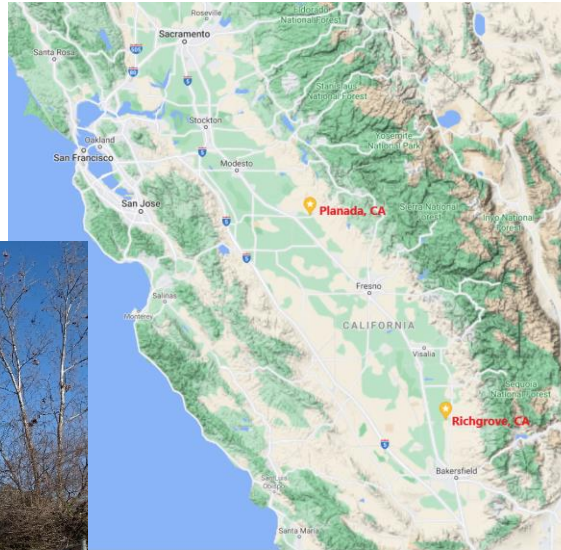
- It's no secret: our planet is heating up (and weather is getting more volatile)
- Demand for cooling is increasing
- Degraded air quality
- Energy efficiency to benefit the resident, the energy grid, and the environment

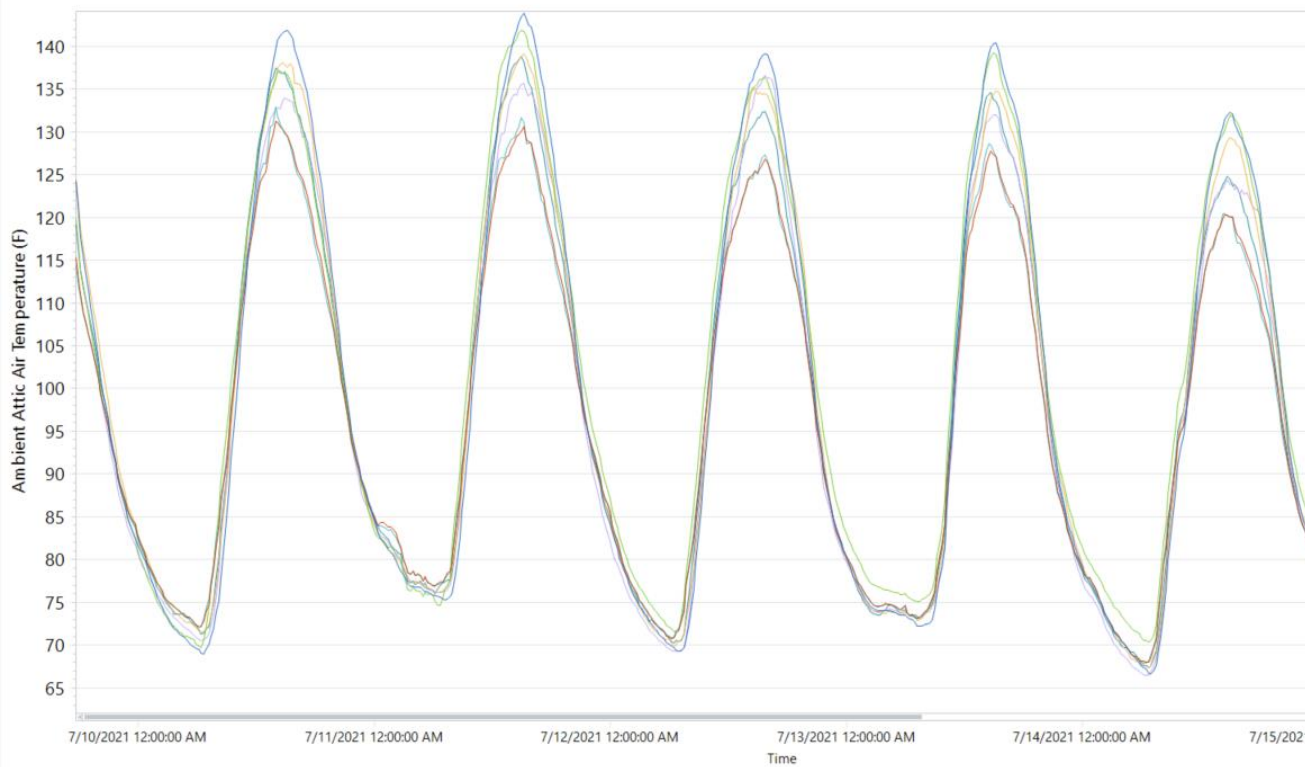






# Examples from the Field





- Vera Cruz Attic Temps\_Attic Ambient Temp Apt #1
- Vera Cruz Attic Temps\_Attic Ambient Temp Apt #2
- Vera Cruz Attic Temps\_Attic Ambient Temp Apt #3
- Vera Cruz Attic Temps\_Attic Ambient Temp Apt #4
- Vera Cruz Attic Temps\_Attic Ambient Temp Apt #6
- Vera Cruz Attic Temps\_Attic Ambient Temp Apt #7
- Vera Cruz Attic Temps\_Attic Ambient Temp Apt #8



# Current Challenges to Delivering Energy Efficiency

- Material and labor shortages across the building industry
- Shortages impact project costs and schedules
- Hot temperatures driving need for energy retrofits while also making working conditions very difficult
- Increased energy demand from cooling and air filtration
- New, high efficiency technologies necessitate technical support



Source: Death Valley National Park – Furnace Creek Visitor's Center







**Meghan Duff**

Senior Associate, R&D Projects

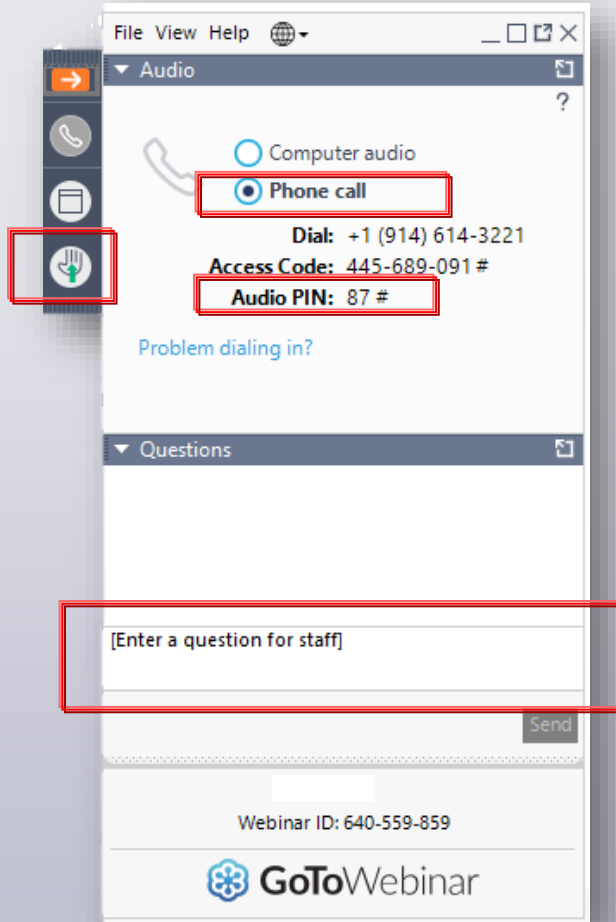
[mduff@aea.us.org](mailto:mduff@aea.us.org)



# Discussion: Share Your Questions

Open and close  
your **control  
panel**

Raise your  
**hand** to enter  
the discussion



The screenshot shows a GoToWebinar window with a sidebar on the left and a main content area. The sidebar contains icons for a control panel (orange arrow), a phone (grey), a document (grey), and a hand (green). The main content area has two sections: 'Audio' and 'Questions'. In the 'Audio' section, 'Phone call' is selected with a radio button, and 'Computer audio' is unselected. Below this, the dial number is '+1 (914) 614-3221', the access code is '445-689-091 #', and the audio PIN is '87 #'. A 'Problem dialing in?' link is present. The 'Questions' section has a text input field with the placeholder '[Enter a question for staff]' and a 'Send' button. At the bottom, the 'Webinar ID: 640-559-859' and the 'GoToWebinar' logo are displayed. Red boxes highlight the 'Phone call' option, the audio details, and the question input field. Blue arrows point from the text instructions to the corresponding UI elements.

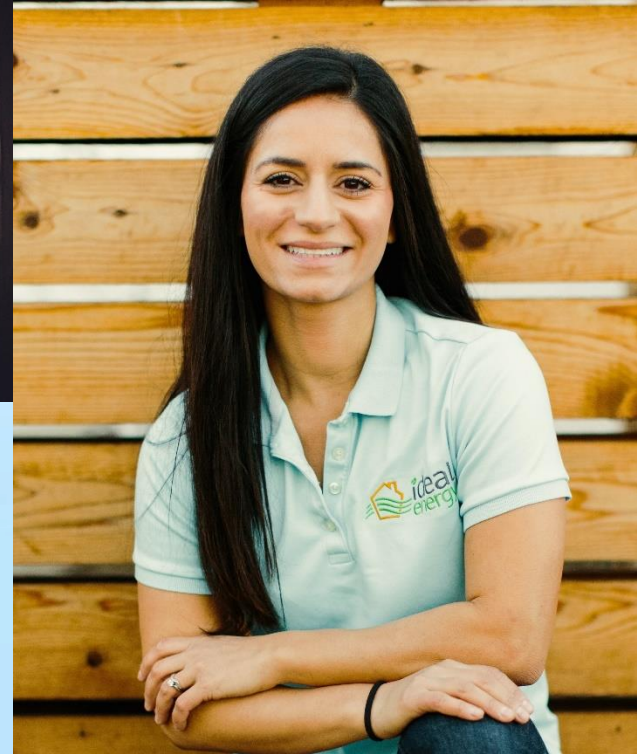
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**Elena Chrimat**  
***Ideal Air Conditioning and Insulation***

# Intro



- Co-founder of Ideal Energy (Ideal Air Conditioning and Insulation)
- Building Performance Association, Founding Board Member
- BPI Certified Building Analyst
- BA, ASU, Design Management
- Home Performance with ENERGY STAR Award Winners from 2018 - 2021

# 2021 Hurdles and Challenges

- **Labor shortages –**
  - **AZ Minimum wage through December 2021 is \$12.15 / hour**
- **Despite our high starting wage, labor is scarce**



# 2021 Hurdles and Challenges



**Salad AND GO**  
**JOB FAIR**

**WHERE:**  
Salad and Go - Rural & Broadway  
909 E. Broadway Rd.,  
Tempe, AZ 85282

**WHEN:**  
Saturday, June 26th  
10am - 2pm

**WHAT:**  
ALL positions needed!  
Management and Team Member positions

**\$15 PER HOUR**



# 2021 Hurdles and Challenges

- 55% shortage of plumbers
- 81% of contractors having trouble filling positions
- 430,000 more workers are needed for the construction industry

# 2021 Hurdles and Challenges

- **March 2021 – Trane roof collapse in Tyler, Texas sent us in to a massive equipment shortage when the unexpected snowstorms hit the area**



# 2021 Hurdles and Challenges

- Little did we know.....

| Item           | OH Qty | Customer B/O & Internal Transfers Total | Intransit | TRIPS (4-6 DAYS) | DELIVERIES (7-9 DAYS) |
|----------------|--------|---|-----------|------------------|-----------------------|
| 4TTR4031L1000A | 0      | 19                                      | 0         | 30               | 0                     |
| 4TTR6024J1000B | 3      | 0                                       | 0         | 0                | 0                     |
| 4TTR6060J1000B | 0      | 9                                       | 6         | 0                | 20                    |
| 4TTR6061C1000B | 0      | 130                                     | 2         | 12               | 16                    |
| 4TTR7060A1000B | 0      | 210                                     | 0         | 0                | 0                     |
| 4TTV0048A1000C | 0      | 45                                      | 0         | 0                | 22                    |
| 4TTV0060A1000C | 0      | 32                                      | 0         | 1                | 3                     |
| 4TTV0061A1000C | 0      | 23                                      | 0         | 0                | 0                     |
| 4TTV8060A1000B | 0      | 135                                     | 0         | 0                | 0                     |
| 4TTX8060A1000C | 0      | 29                                      | 0         | 0                | 0                     |
| 4TWA4060A3000A | 0      | 4                                       | 0         | 0                | 0                     |
| 4TWA4060A4000A | -2     | 27                                      | 0         | 12               | 1                     |



# 2021 Hurdles and Challenges

- Little did we know.....

|                |    |     |    |     |    |
|----------------|----|-----|----|-----|----|
| 4TWR6042H1000A | 0  | 12  | 0  | 0   | 0  |
| 4TWR6048H1000A | 0  | 25  | 0  | 8   | 0  |
| 4TWR6060H1000A | 0  | 26  | 0  | 11  | 0  |
| 4TWR7024A1000D | 0  | 1   | 0  | 0   | 0  |
| 4TWR7048A1000D | 0  | 132 | 0  | 7   | 0  |
| 4TWR7060A1000D | 0  | 118 | 0  | 4   | 0  |
| 4TWV0048A1000C | -1 | 29  | 0  | 0   | 0  |
| 4TWV0060A1000C | 0  | 62  | 0  | 0   | 0  |
| 4TWV8048A1000B | 0  | 117 | 0  | 0   | 0  |
| 4TWV8060A1000B | 0  | 134 | 0  | 0   | 0  |
| 4TXCB006DS3HCA | 0  | 61  | 40 | 236 | 50 |
| 4TXCC005DS3HCA | 0  | 1   | 4  | 0   | 0  |
| 4WCA4030A1000A | 0  | 7   | 0  | 4   | 0  |
| 4WCA4060A1000A | 0  | 2   | 0  | 0   | 0  |
| 4WCC4024A1000A | 0  | 2   | 18 | 37  | 18 |
| 4WCC4048A1000A | 0  | 41  | 18 | 16  | 0  |
| 4WCC4060A1000A | -4 | 30  | 92 | 0   | 0  |
| 4WCY4048A3000C | -1 | 5   | 0  | 0   | 3  |
| 4WCY4060A3000C | 0  | 2   | 0  | 0   | 0  |

# Where do we put this stuff?



# 2021 Hurdles and Challenges

- **Steel** - Spot price up 14% since May; up 100% since December
- **Aluminum** - Spot price up 2% since May; up 32% since December
- **Copper** - up 25% since December
- **Airfreight** - up 43% over prior year
- **Ocean rate** up 2x to 3x higher than prior year driven by increased US imports, port congestion, and lack of available container ships

# Price Increases

- **Price increases across the board from all of our vendors.**
  - **Usually we get one price increase at the beginning of every year**
  - **This year we've received 3 from one vendor**
  - **2 from another**
  - **1 from another...**
  - **And more coming.**

# 2021 Hurdles and Challenges

July 12, 2021

## ECONOMIC EMERGENCY!

Dear Fellow Inflation Victim:

Hyperinflation has hit our industry along with many others. There is no other option but that we all go along with it.

We thought that we had seen it all in our 43 years of serving you, but no. The river of increases just keeps flowing like the Mississippi River in the Spring. We have a choice to either jump in the boat or drown in the river.

We are going to board the boat and implement a commodity surcharge of 9.7%. Consequently, you need to pass this along to your customers as well - do not be afraid to raise your prices now. We need this increase immediately but, we are delaying it until August 1 so that you have time to inform your customers of their cost increase.

We hope this is a temporary phenomenon, but we don't know what surprises Washington has in store for us tomorrow. The surcharge will be adjusted as required based on future circumstances.

We appreciate and value your business and regret the circumstances in which we find ourselves.

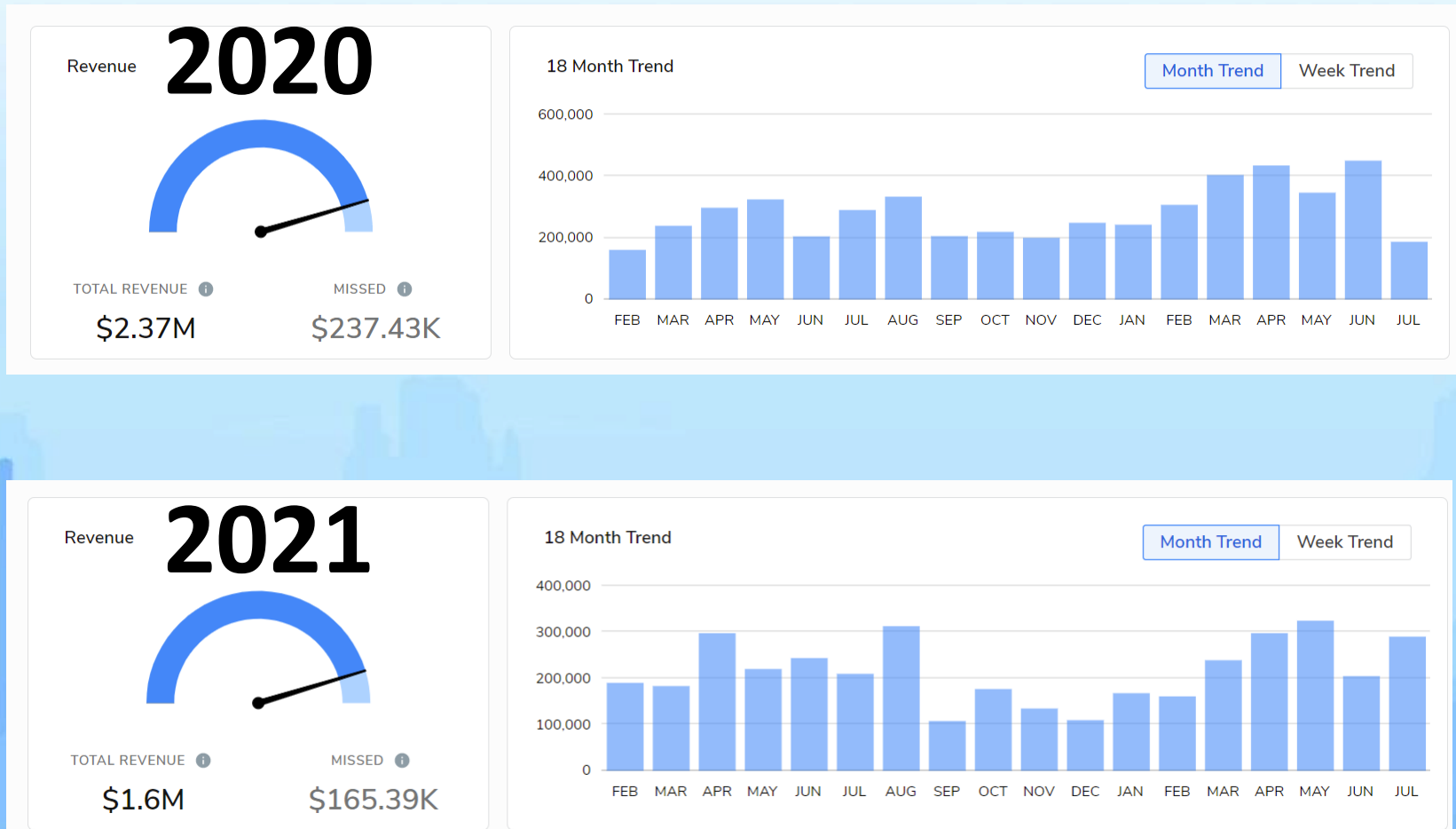
Sincerely,



# And of course, there's your fleet...



# What about our demand?



# How this year is going





# How this year is going



# How this year is going



# How this year is going





# How this year is going





# How this year is going



# Questions?

# Comments?

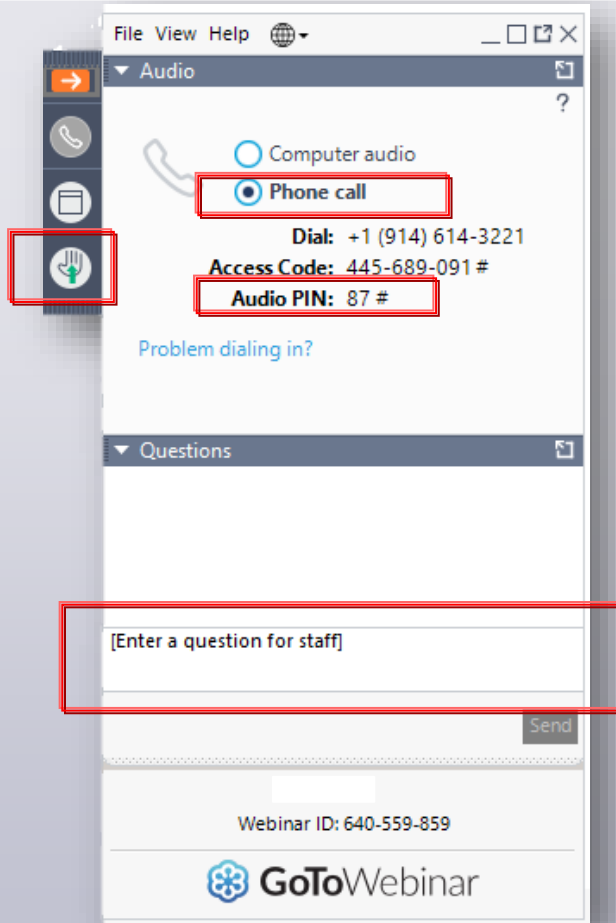
Elena Chrimat

[elena@idealairaz.com](mailto:elena@idealairaz.com)

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**Sally Phipps**  
*Austin Energy*



# Like a Heat Wave: Summer Healthy, Efficient Housing Challenges

Home Performance with ENERGY STAR Program  
and Weatherization Assistance Program

Sally Phipps



7/22/2021


© 2021 Austin Energy

**Austin Energy is a municipal utility serving around 500,000 customers**



# Programs Overview

Two residential programs under the Home Performance with ENERGY STAR umbrella



Home Performance  
with ENERGY STAR  
(HPwES)

Rebate program and  
low interest financing

Weatherization  
Assistance Program  
(WAP)

Low to moderate income  
program  
Austin Energy covers 100%  
the cost of the improvements



# Programs Overview

- Both programs include similar measures
- Duct improvements, weatherization, solar screens, attic insulation, smart thermostats, HVAC improvements, etc.



# Weatherization Program in 2021 Enhancements

## • Enhanced Eligibility = Increased Inclusion

|                     | FY20                          | FY21             |
|---------------------|-------------------------------|------------------|
| Income Threshold    | 200% FPL*                     | 80% MFI**        |
| Income Amount***    | \$52,400                      | \$78,100         |
| Application         | Multiple pages, Paper         | 1 page, Online   |
| Income Verification | Income Documentation Required | Self Attestation |

\* Federal Poverty Level

\*\* Median Family Income

\*\*\* Family of Four

## • A/C Rebate & Loan Changes

- Lowered qualifying credit score
- Up to \$950 rebate
- Velocity Credit Union loans up to \$10,000 at 0% interest/120 months





# WAP Challenges

- Program changes = significant increase in customer interest and eligibility
  - Large project pipeline and not enough contractor crews to complete the projects
  - Longer wait times than normal for some customers
- Turnover, transitions and acquisitions at some WAP contractor companies
  - New leaders and crews learning the program



# HPwES Challenges

- On our way to recovery from the pandemic but are still seeing lower numbers



- Program marketing limitations
  - Utility is focused on marketing customer support, assistance and low cost and no cost options
- Some customers facing financial changes and constraints

# Challenges Facing Both Programs

- Backordered or delayed HVAC equipment

- Pushes project timelines
- Customers without AC and require temporary cooling
- Possible loan expirations while projects on hold



- Contractor staffing shortages and new staff

- More training, slower project completion, more potential for issues on projects

## Both Programs

Extend allowable project timelines to prevent loan expirations

Retain a combination of remote and field inspections

### HPwES

#### Increase fiscal incentives

- End of Summer Offer
  - End of July – September 30
  - 0% financing or \$600 rebate
- Increase next fiscal year's Limited Time Offer
  - Start 10/1/21 – 4/15/2022
  - Additional rebates, 0% financing or \$600 rebate

### WAP

Work with contractors to try to speed up work

Maintain project que through next fiscal year

Shift internal resources to perform inspections



# Presenters

Sally Phipps

Home Performance with ENERGY STAR

Environmental Program Coordinator

512-505-3585

[Sally.Phipps@austinenergy.com](mailto:Sally.Phipps@austinenergy.com)





# Thank You!





**Customer Driven.  
Community Focused.<sup>SM</sup>**



# Discussion: Share Your Questions

Open and close  
your **control**  
**panel**

Raise your  
**hand** to enter  
the discussion

The screenshot shows the GoToWebinar interface. On the left is a vertical control panel with icons for a back arrow, a phone, a document, and a hand. The 'Phone call' icon is highlighted with a red box. The main window has a title bar with 'File View Help' and a globe icon. Below the title bar is a tab labeled 'Audio'. Under the 'Audio' tab, there are two radio buttons: 'Computer audio' and 'Phone call'. The 'Phone call' option is selected and highlighted with a red box. Below the radio buttons, the text 'Dial: +1 (914) 614-3221' is displayed. Below that, the text 'Access Code: 445-689-091 #' is displayed. Below that, the text 'Audio PIN: 87 #' is displayed. Below the text, there is a link that says 'Problem dialing in?'. Below the 'Audio' tab is another tab labeled 'Questions'. Below the 'Questions' tab is a text input field with the placeholder text '[Enter a question for staff]'. The input field is highlighted with a red box. To the right of the input field is a 'Send' button. At the bottom of the window, the text 'Webinar ID: 640-559-859' is displayed. Below the text is the GoToWebinar logo.

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# Open Discussion

Open and close  
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# Closing Poll

- **After today's call, what will you do?**
  - Consider implementing one or more of the ideas discussed
  - Seek out additional information on one or more of the ideas
  - Make no changes to your current approach
  - Other (please explain)





# STEM RISING

U.S. DEPARTMENT OF ENERGY  
[ENERGY.GOV/STEMRISING](https://www.energy.gov/stemrising)

# Explore the Residential Program Solution Center

Resources to help improve your program and reach energy efficiency targets:

- [Handbooks](#) - explain *why* and *how* to implement specific stages of a program.
- [Quick Answers](#) - provide answers and resources for common questions.
- [Proven Practices](#) posts - include lessons learned, examples, and helpful tips from successful programs.
- [Technology Solutions](#) **NEW!** - present resources on advanced technologies, **HVAC & Heat Pump Water Heaters**, including installation guidance, marketing strategies, & potential savings.



<https://rpssc.energy.gov>

# Thank You!

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